

Amendments to the Specification:

Please replace the paragraph on page 8 lines 11-19 with the following amended paragraph:

Still referring to Figure 7, U-shaped member 322 attaches to a retractable arm ~~(not shown)~~ 323 and partially surrounds the upwardly extending portion of the elongated rod 318 and houses light emitting source 314 and light detector 316 on opposing sides of U-shaped member 322. The light emitting source 314 and light detector 316 are positioned such that when the elongated rod 318 is stationary, the elongated rod 318 blocks the light emitted by light emitting source 314. The initial position of the elongated rod 318 is in an area 150 between catch 118 and positioning lever 110, away from the tape path. The retractable arm 323 moves the barrel 310 from the initial position toward the tape path traveling out of area 150.

Please replace the paragraph beginning on page 8, line 30 and ending on page 9, line 6 with the following amended paragraph:

The retractable arm 323 moves the barrel 310 towards the leader tip 210 following an unbuckle operation. If the takeup leader and the tape cartridge leader properly disconnect, the takeup leader moves from area 150 to the disconnected position in contact with positioning lever 110 as illustrated in Figure 8. In the case of a successful disconnect, Figures 7 and 8, as the elongated rod 318 pulls against takeup leader 206, barrel 310 is free to pivot. Rotation of the barrel 310 rotates elongated rod 318 out of the path between the light emitting source 314 and the light detector 316. In response to the rotation of the elongated rod 318, the light detector 316 provides feedback to the microprocessor. Detection of light by the light detector 316 indicates that the takeup leader and the tape cartridge leader properly disconnected.

Please replace the paragraph on page 9 lines 7-16 with the following amended paragraph:

Serial No. 10/678,781

Amendment And Remarks Responsive To
Office Action Mailed 07/02/04

Page 2 of 14

298228v1

Referring to the failed disconnection condition of Figure 9, when the retractable arm 323 moves barrel 310 forward towards takeup leader 206 following a failed disconnection, the barrel 310 does not rotate. Referring to Figure 10, when the takeup leader 106 and the tape cartridge leader 104 fail to disconnect, the takeup leader remains in the tape path. When the retractable arm 323 moves the elongated rod 318 in the direction of the tape path, the elongated rod 318 does not encounter the takeup leader 106 and therefore travels outside of area 150 that is enclosed when the takeup leader is in its disconnected position. Barrel 310 and elongated rod 318 do not rotate when the elongated rod 318 is free to travel out of area 150 and toward the tape path.

Please replace the paragraph on page 10 lines 13-19 with the following amended paragraph:

The control circuit (not shown) extends/retracts a retractable arm 323 to initially position elongated rod 318 in area 150 between catch 118 and positioning lever 110 and behind tape path as previously described. Figures 7, 8 and 9 illustrate close up top views of a section of the electromechanical sensing assembly and tape drive 100. To provide a view of the elongated rod 318 extending into area 150 between the tape drive catch 118 and the positioning lever 110, housing 320 and retractable arm 330 323 are not shown.

Please replace the paragraph on page 10, lines 20-33 with the following amended paragraph:

Referring to the operational flow diagram of Figure 11 in conjunction with the perspective view of Figure 7, following an unbuckle operation by the tape drive in step 400 the takeup leader and tape cartridge leader may properly disconnect in step 402. The connection status of the takeup leader and tape cartridge leader is determined by the position of the takeup leader. To test the connection status, the test fixture 120 extends retractable arm 330 323 in step 404 moving elongated rod 318 in front of positioning lever 110 in the direction of the tape cartridge. If elongated rod 318

encounters takeup leader 106 resting in close proximity to positioning lever 110 in step 406, retention of elongated rod 318 in enclosed area 150 causes drum 310 and coupled elongated rod 318 to rotate in step 408. Rotational movement of elongated rod 318 in step 408 opens the light path between light emitting source 314 and light detector 316 in step 410. In response to detecting light, the light detector 116 send a signal to the microprocessor in step 412 indicating that the takeup leader 106 and the tape cartridge leader 104 properly disconnected in step 402.

Please replace the paragraph beginning on page 9, line 27 and ending on page 10, line 4 with the following amended paragraph:

The present tape drive connection sensing assembly also provides a method for testing the disconnection operation of the tape drive in a laboratory environment. The sensing assembly may be connected 121 to a test fixture 120 and positioned above a tape drive 100 for testing repeated unbuckle operations. In the testing configuration, a controller circuit may initiate an unbuckle operation of the tape drive. Following the unbuckle operation, the position of the takeup leader is detected by the test fixture 120 sensing assembly. In response to the position of the takeup leader, the sensing device may provide feedback to the controller indicating the position of the takeup leader. Recording the number of unbuckle operation attempts and the number of attempts that successfully disconnect the takeup leader from the tape cartridge leader provides a method for collecting reliability data.